

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) Apparatus for modifying the shape of an aircraft component, the apparatus including a shaped surface so arranged that an aircraft component may be forced against the shaped surface in a manner that modifies the shape of the aircraft component, wherein the shaped surface is arranged so that its shape is adjustable.
2. (Original) An apparatus according to claim 1, wherein the apparatus is arranged such that the aircraft component is free to move in directions substantially parallel to the shaped surface.
3. (Original) An apparatus according to claim 2, wherein the apparatus is arranged such that, in use, the aircraft component is prevented from moving beyond predefined boundaries.
4. (Currently Amended) An apparatus according to ~~any preceding claim 1~~, wherein the apparatus includes a base which provides structural support for the shaped surface.
5. (Currently Amended) An apparatus according to ~~any preceding claim 1~~, wherein the apparatus includes the base comprising a plurality of base modules.

LEVERS
U.S. National Phase of PCT/GB2003/005455

6. (Original) An apparatus according to claim 5, wherein the base modules are fixed in position relative to each other during operation of the apparatus to modify the shape of the aircraft component.

7. (Currently Amended) An apparatus according to claim 5 ~~or claim 6~~, wherein the position of the base module relative to another base module is adjustable.

8. (Original) An apparatus according to claim 7, wherein an adjacent pair of base modules are pivotally movable relative to each other.

9. (Currently Amended) An apparatus according to ~~any preceding claim 1~~, wherein the shaped surface comprises an open structure.

10. (Original) An apparatus according to claim 9, wherein the open structure comprises a multiplicity of spaced apart elements and the shape to which the component may be modified is dependent on the shape defined by a notional surface that envelopes the elements.

11. (Currently Amended) An apparatus according to ~~any preceding claim 1~~, wherein the shaped surface is defined by a multiplicity of separate elements.

LEVERS

U.S. National Phase of PCT/GB2003/005455

12. (Original) An apparatus according to claim 11, wherein the elements are arranged in groups, each group comprising a plurality of elements, the elements in each group are mounted in fixed relation to each other.

13. (Currently Amended) An apparatus according to ~~any of claims~~claim 10 to 12, wherein the elements are in the form of ribs.

14. (Currently Amended) An apparatus according to ~~any of claims~~claim 10 to 13, wherein the elements are removably mounted on the apparatus.

15. (Currently Amended) An apparatus according to ~~any of claims~~claim 10 to 13, wherein the elements are fixed in position on the apparatus by means of a portion of the element that engages with a corresponding portion of the apparatus, the portions and corresponding portions being shaped such that they do not restrict movement of the elements away from the apparatus.

16. (Currently Amended) An apparatus according to ~~any preceding claim~~1, wherein the shaped surface is rigid.

17. (Currently Amended) An apparatus according to ~~any preceding claim~~1, wherein the apparatus is arranged such that the component is, in use, forced against the shaped surface by means of an air pressure difference.

LEVERS
U.S. National Phase of PCT/GB2003/005455

18. (Original) An apparatus according to claim 17, wherein the air pressure difference is at least partially provided by suction via a bag of a bagging apparatus.
19. (Currently Amended) An apparatus according to ~~any preceding claim 1~~, wherein the apparatus is in the form of a creep-forming tool.
20. (Currently Amended) An apparatus according to ~~any preceding claim 1~~, wherein the apparatus is arranged so that it is suitable for modifying the shape of metallic components.
21. (Currently Amended) An apparatus according to ~~any preceding claim 1~~, wherein the apparatus further includes an intermediate member that in use receives and supports the component, is positioned between the shaped surface and the component, and deforms to a shape dependent on the shape of the shaped surface.
22. (Original) A method of modifying the shape of an aircraft component, the method including the steps of
- providing a shaped surface, the shape of which being adjustable, forcing an aircraft component against the shaped surface in a manner that modifies the shape of the aircraft component, and
- removing the aircraft component.

LEVERS
U.S. National Phase of PCT/GB2003/005455

23. (Original) A method according to claim 22, further including the steps of observing the modified shape of the aircraft component and comparing the modified shape so observed with an ideal shape.

24. (Original) A method according to claim 23, further including the step of adjusting the shape of the shaped surface to compensate for the differences between the observed modified shape of the aircraft component and the ideal shape.

25. (Original) A method according to claim 24, including forcing a further aircraft component against the adjusted shaped surface in a manner that modifies the shape of the aircraft component, removing the further aircraft component, observing the modified shape of the further aircraft component and comparing the modified shape so observed with the ideal shape.

26. (Original) A method according to claim 23, wherein the following steps are performed as many times as are necessary until the differences between the observed modified shape of the aircraft component and the ideal shape are within predetermined acceptable tolerances:

adjusting the shape of the shaped surface to compensate for the differences between the observed modified shape of the aircraft component and the ideal shape and then

forcing a further aircraft component against the adjusted shaped surface in a manner that modifies the shape of the aircraft component,

LEVER9
U.S. National Phase of PCT/GB2003/005455

removing the further aircraft component,
observing the modified shape of the further aircraft component and comparing
the modified shape so observed with the ideal shape.

27. (Currently Amended) A method according to ~~any of claims~~ claim 22 to 26,
wherein the step of forcing the aircraft component against the shaped surface is
performed such that the aircraft component is forced against the shaped surface, via an
intermediate member.

28. (Currently Amended) A method according to ~~any of claims~~ claim 22 to 27,
wherein the step of forcing of the aircraft component against the shaped surface causes
the aircraft component to undergo plastic deformation.

29. (Currently Amended) A method according to ~~any of claims~~ claim 22 to 28,
wherein the method includes a step of releasing the component from the shaped
surface and after the release of the component the shape of the component changes
significantly.

30. (Currently Amended) A method according to ~~any of claims~~ claim 22 to 29,
wherein the shaped surface is supported by a plurality of base modules, and, before the
step of forcing of the aircraft component against the shaped surface, the method
includes a step of adjusting and fixing the position of one base module relative to
another.

LEVERS
U.S. National Phase of PCT/GB2003/005455

31. (Currently Amended) A method according to ~~any of claims~~ claim 22 to 30, wherein the shaped surface is defined by a multiplicity of separate elements and, before the step of forcing of the aircraft component against the shaped surface, the method includes a step of adjusting the shape of the shaped surface by replacing one or more of the separate elements.

32. (Currently Amended) A method of creep forming a metallic component including ~~using the apparatus of any of claims 1 to 21, or performing the steps of the method of~~ any of claims claim 22 to 31.

33. (Currently Amended) An aircraft component formed by use of an apparatus according to ~~any of claims claim 1 to 21, or from performance of a method according to~~ any of claims 22 to 31.

34. (Original) An aircraft including an aircraft component according to claim 33.